From 1872 to 1891 the Weather Bureau carried out similar temperature records along the Atlantic coast in rivers and harbors, but, owing to our prevailing westerly winds, the Atlantic Ocean temperatures have but little effect upon American weather. Temperature observations of the Pacific Ocean water would be more interesting, but we doubt whether it would explain the anomalies of the Pacific coast climates. The actual influence of our Great Lakes on the climate of stations on the windward side is appreciable by the increased cloudiness twenty miles from the shore, but not much beyond; its influence on the temperature is only appreciable by the prevention of early frosts by reason of the formation of cloud and fog. The general influence of the Atlantic Ocean on the weather of Great Britain, or of the Pacific Ocean on the weather of northern California, Oregon, and Washington is to produce cloud, fog, and rain and thus affect the temperature indirectly. The direct effect of a rise or fall in the temperature of the ocean surface is analogous to the direct effect of the changes in the temperature of a land surface. Both should be expressible by an algebraic formula, consisting essentially of two terms, viz: (1) a term expressing the heat given back to the air by conduction and convection and radiation, all of which, of course, is much larger by daytime and smaller by night-time for the land as compared to the ocean, and (2) a second term expressing the quantity of latent heat conveyed to the air by the evaporation of moisture, which on the average of the day and night is greater for the ocean than for the land. But when the lower layers of air thus warmed and moistened have moved to a great distance horizontally or vertically, or when, without much motion, this air is cooled down by radiation, then the land air keeps clear longer than the ocean air and it is this property that produces the great variety of climates to the leeward of the water.

It will be interesting to compare the actual figures for the monthly mean air temperatures on the west coast of Great Britain and on the west coast of North America, and the following table gives the figures as read off from the charts of Bartholomew's Physical Atlas, Plate VI of the British Isles, and Plate VIII for the United States and Canada. We have taken four representative points on the British coast, but only two on the American coast, because the latter are so much farther south in latitude that, strictly speaking, only the northernmost, viz, Vancouver Island, latitude 50°, should be compared with Lands End, latitude 50°.

Months.	Great Britain.				America.	
	Hebrides. Lat. 57°.	North Ireland. Lat. 55°.	South Ireland. Lat. 51°.	Lands End. Lat. 50°.	Vancouver. Lat. 50°.	Mouth of Columbia. Lat. 46°.
	°	°	°	°	°	°
January	42.5	42.0	44.5	44.5	42.0	40.0
February	42.0	42.0	45.0	45.5	40.0	42.0
March	42.0	43.0	46.0	46.0	43.0	46.0
April	45.0	47.0	49.0	49.5	47.0	49.0
May	49.0	51.0	52.5	53.0	49.0	55.0
June	54.0	55.0	57.5	58.5	54.0	57.0
July	55.5	58.0	59.5	61.5	55.0	60.0
August	56.0	58.0	60.0	61.5	55.0	60.0
September	54.0	55.0	57.0	59.0	53.0	57.0
October	49.5	50.0	52.0	54.0	49.0	53.0
November	45.5	45.0	48.0	49.0	45.0	47.0
December	44.0	44.0	46.0	46.0	40.0	42.0
Annual temperature	47.0	49.0	51.5	52.5	49.0	50.0
Annual ranges	14.0	16.0	14.0	16.0	15,0	20.0

The general character of the weather is controlled principally by the vertical ascent or descent of the wind and by its northern or southern direction much more than by the fact that it blows from the ocean. All winds that come from the Pacific have sufficient moisture to form rain and prevent the occurrence of either extremely hot or extremely cold weather, provided only they can be forced to rise up and be cooled dynamically or blow northward and be cooled by radiation. Both these causes conspire to form the winter rains on the Pacific coast north of latitude 40°, and also in Great Britain north of latitude 50°, but neither of them contribute to the formation of rain at any time of the ordinary year south of San Francisco, Cal., latitude 38°.—*C. A.*

TREES AS FORECASTERS OF RAIN.

A correspondent writes:

People often say "it is a sign of rain when the wind blows up the leaves so as to show the white lower side." What is the element of truth, if any, in this that has given rise to this current statement?

Since there is no known meteorological reason for the phenomenon described, the question was submitted to the Chief of the Bureau of Plant Industry, United States Department of Agriculture, and we give herewith the reply received from Mr. A. F. Woods, Pathologist and Physiologist.

It is true that people often say that the turning up of the leaves is a sign of rain. I have heard the remark many times, but as far as my observations go the sign does not seem to be a very sure one. There are many kinds of trees, like the silver-leaf poplars, in fact all the poplars, the maples, and some of the oaks, which turn their leaves up whenever there is a fairly strong, steady wind, but they do it as much in clear weather as in rainy. It has been suggested to me that possibly the belief may have arisen from the fact that winds capable of turning leaves over very often precede or follow rainstorms, and as people are usually on the alert when the general atmospheric conditions favor rain, looking for signs to confirm the general feeling they have that it is going to rain, it might be that the turning up of the leaves would be especially noted at such times.

METEOROLOGY IN ARGENTINA.

It is well known that our countryman, Dr. B. A. Gould, of Cambridge, Mass., after having established an astronomical observatory in Argentina, turned his attention to climatology and inaugurated a meteorological office, under the general directorship of Mr. Walter G. Davis, who had accompanied him from this country. After publishing about twenty annual volumes of meteorological observations and climatological investigations, Mr. Davis has now succeeded in realizing the great step in meteorology that has been taken by nearly every other climatological bureau. He has namely, organized in Buenos Ayres, under the Argentine Department of Agriculture, a branch office that publishes a daily weather map based on telegrams from all available points. A recent letter from Mr. Davis states that—

Since the beginning of this year I have had my time fully occupied in getting the daily weather map service organized; it is now fairly started, but far from being complete. We have free use of the national telegraph lines, as well as of nearly all the private railway wires, for the transmission of the 2 p. m. observations. At present there are nearly 70 stations sending in complete observations and 350 pluviometric stations. Within the next few months I hope to have about 130 second-class stations and a large increase in the rain-reporting stations. The observations are sent here (Buenos Ayres) and the maps printed in our own establishment. The recent extension of the telegraph lines to the southern territories has been a great boon to us from a meteorological point of view; the coast line is now at Rio Gallegos, in Santa Cruz, and another branch is being constructed near the foot of the Cordillera from latitude 38° to 47° south, and then crosses the country to the Atlantic coast. This is a most important line for us, as it will give us communication with the region where nearly all the "pamperos" have their birth and development.

No attempt has been made at forecasting, as I consider it better to have some experience with the conditions as shown by the daily maps before undertaking to do too much. I trust, however, that this branch of the work will come in due time.

The daily map published by the meteorological office at Buenos Ayres makes a very imposing appearance. It is 16.2 inches high by 11.1 broad and extends between the forty-sixth and seventy-seventh degrees of longitude west from Greenwich and between the twenty-first and fifty-seventh degrees of south